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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,264	12/31/2003	Todd Heintz	034300-000491	1753
7590 04/09/2008				
Robert E. Krebs Thelen Reid & Priest, LLP P.O. Box 640640 San Jose, CA 95164-0640			EXAMINER PEREZ, ANGELICA	
			ART UNIT 2618	PAPER NUMBER
			MAIL DATE 04/09/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/750,264

**Applicant(s)**

HEINTZ ET AL.

**Examiner**

Perez M. Angelica

**Art Unit**

2618

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-53 and 55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 and 55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 12/17/07, 4/20/07, 2/1/08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/1/2008 has been entered.

***Claim Objections***

2. Objection to claim 1 has been withdrawn.

***Claim Rejections - 35 USC § 112***

3. Claims 2, 16, 30 and 42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. E.g., "at least one speaker, formed in said second body between said recess and one of said opposed ends".

The examiner was not able to find the description and/or drawings that show where the speaker(s) are located in the second body; instead, the examiner found where the speaker(s) are located in the first body, see item 20 in figure 1. For examination purposes, the limitation will be considered provisionally.

Rejection of claim 29 under 35 USC § 112 has been withdrawn.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 10, 12-14, 16, 23, 25-27, 29-31, 36, 38-39, 41-43, 50 and 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchikura, Takao (Uchikura, US005337346A) in view of Moon Byoung-Seoup (Moon, US Patent No.: 7,130,669 B2) and further in view of Iizuka et al. (Iizuka, 2002 359666).

Regarding claims 1 and 16, Uchikura teaches of a hand-held electronic device (figure 3), comprising: a first body having a display screen configured to display text and graphical information (figure 3, upper portion of item 1 and item 15; column 3, lines 50-56); a second body having opposed ends (figure 3, lower portion of item 1, section that divides the display and the keyboard), a recess disposed between, and spaced-apart from, opposed ends with a first portion of the keyboard disposed within the recess (figures 2 and 3, where portion 2 is positioned in the recess when in a closed position and where the recess is between and spaced-apart from opposed ends) a third body having opposed sides and a number pad and pivotally attached to move with respect to the second body to reveal the first portion and a second portion of a keyboard (items 2 and 4, corresponding to the "third body" and the second portion of the keyboard), with the second portion being disposed on one of the opposed sides and the number pad

being disposed upon remaining side of the opposed sides (figure 3, items 2 and 4 and lower portion of item 1); at least one speaker, formed in the second body between the recess and one of the opposed ends, to transmit audio information (figures 2 and 3, items 11 and 16); and at least one microphone, formed in the second body between the recess and the remaining one of the opposed ends, for receiving audio data (figures 2 and 3, items 11 and 16; column 4, lines 16-18, where receiving audio data is a function of a microphone).

Uchikura does not specifically teach of the first body being pivotally attached to move with respect to the second body to reveal the display screen and the number pad.

In related art concerning a portable information terminal having expandable data input unit, Moon teaches of a first body being pivotally attached to move with respect to the second body to reveal the display screen and the number pad (figure 6, item 22 corresponding to the first body and item 20 corresponding to the second body).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Uchikura's portable information device with Moon's pivot-able feature between body one and two in order to make the device more compact when not in use.

Uchikura and Moon do not teach of at least one speaker, formed in the second body between the recess and one of the opposed ends, to transmit audio information.

In related art concerning a mobile telephone with stereo reproduction unit that outputs amplified stereo audio signals from speakers arranged in edges of upper and lower housings, Iizuka teaches of at least one speaker, formed in the second body

between the recess and one of the opposed ends, to transmit audio information (figure a, item 43R and abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Uchikura's and Moon's portable information device with Iizuka's rearrangement of parts, e.g., speaker located at the lower body in order to produce sound from more than one speaker distributed on the telephone.

Regarding claim 29, Uchikura teaches of a hand-held electronic device (figure 3), comprising: a first body having a display screen configured to display text and graphical information (figure 3, upper portion of item 1 and item 15; column 3, lines 50-56); a second body having opposed ends (figure 3, lower portion of item 1, section that divides the display and the keyboard), a recess disposed between, and spaced-apart from, opposed ends with a first portion of the keyboard disposed within the recess (figures 2 and 3, where portion 2 is positioned in the recess when in a closed position and where the recess is between and spaced-apart from opposed ends); and a third body including a number pad (figure 1, item 2) and a second portion of the user interface (figure 3, item 4), with the first and second portions being completely covered when the third body is in a closed position (figure 3, where items 4 and 5 are completely covered when the third body, item 2, is in a closed position), where the third body pivots with respect to the second body about one hinge axis to an open position to reveal the first and second portions (column 2, lines 15-21 and figure 3, where item 2 pivots with respect to second body corresponding to the lower portion, about a vertical axis, and reveals a first and second portions of a user interface).

Moon teaches of a second body being independent from the first body (figure 6, item 20 corresponding to the second body and item 22 corresponding to the first body).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Uchikura's portable information device with Moon's body one and two independent in order to make the device more compact when closed.

Regarding claim 41, Uchikura teaches of a hand-held electronic device (figure 3), comprising: a first body having a display screen (figure 3, upper portion of item 1 and item 15; column 3, lines 50-56); a second body having opposed ends (figure 3, lower portion of item 1, section that divides the display and the keyboard), with a recess formed between the opposed ends and a first input interface disposed within the recess (figures 2 and 3, where portion 2 is positioned in the recess when in a closed position and where the recess is between the opposed ends) a third body pivotally coupled to the second body to pivot about a second hinge axis extending perpendicular to the first hinge axis to expose the first input interface and a second input interface (items 2 and 4, corresponding to the "third body" and the second portion of the keyboard, interface).

Uchikura does not specifically teach of the second body being pivotally attached to the first body to rotate about a first hinge axis to reveal the display screen.

Moon teaches of a second body being pivotally attached to the first body to rotate about a first hinge axis to reveal the display screen (figure 6, item 20 corresponding to the second body and item 22 corresponding to the first body).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Uchikura's portable information device with Moon's pivot-able feature between body one and two in order to make the device more compact when not in use.

Regarding claims 2 and 42, Uchikura, Moon and Iizuka teach all the limitations of claims 1 and 41, respectively. Iizuka further teaches of at least one speaker, formed in the second body between the recess and one of the opposed ends, to transmit audio information (figure a, item 43R and abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Uchikura's and Moon's portable information device with Iizuka's rearrangement of parts, e.g., speaker located at the lower body in order to produce sound from more than one speaker distributed on the telephone.

Regarding claims 3, and 43, Uchikura, Moon and Iizuka teach all the limitations of claims 1 and 41, respectively. Uchikura further teaches of at least one microphone, formed in the second body between the recess and the remaining one of the opposed ends, for receiving audio data (figures 2 and 3, items 11 and 16; column 4, lines 16-18, where receiving audio data is a function of a microphone).

Regarding claims 10, 23, 36 and 50, Uchikura, Moon and Iizuka teach all the limitations of claims 1, 16, 29 and 41, respectively. Uchikura further teaches where the third body is pivotally attached to a right side of the second body (items 2 and lower portion of 1 are pivotally attached).

Regarding claims 12, 25 and 52, Uchikura, Moon and Iizuka teach all the limitations of claims 1, 16 and 41, respectively. Moon further teaches where the number pad is coupled to the display screen with a hinge (items 2 and lower portion of 1 are pivotally attached).

Regarding claims 13, 26 and 53, Uchikura, Moon and Iizuka teach all the limitations of claims 1, 16 and 41, respectively. Moon further teaches of at least one function key that controls the basic functions of the device (column 24-29).

Regarding claims 14, 27 and 39, Uchikura, Moon and Iizuka teach all the limitations of claims 1, 16 and 29, respectively. Moon further teaches where the first body is coupled to the second body with a hinge (see figure 6, where the axis A2 of the hinge 14, seen previously in figures 2 and 3, shows the coupling between bodies 1 and 2).

Regarding claim 30, Uchikura, Moon and Iizuka teach all the limitations of claim 29. Iizuka further teaches of at least one speaker, formed in the second body between the recess and one of the opposed ends, to transmit audio information (figure a, item 43R and abstract).

Regarding claim 31, Uchikura, Moon and Iizuka teach all the limitations of claim 29. Uchikura further teaches of at least one microphone, formed in the second body between the recess and the remaining one of the opposed ends, for receiving audio data (figures 2 and 3, items 11 and 16; column 4, lines 16-18, where receiving audio data is a function of a microphone).

Regarding claim 38, Uchikura, Moon and Iizuka teach all the limitations of claim 29. Moon further teaches of at least one function key that controls the basic functions of the device (column 24-29).

6. Claims 4, 15, 17, 28, 40, 44 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchikura in view of Moon and Iizuka and further in view of Miramontes, Ivan (Miramontes, US 2002/0,072,395 A1).

Regarding claims 4, 17 and 44, Uchikura and Moon teach all the limitations of claim 1, 16 and 41, respectively.

Although it can be implied that a notebook keyboard is one of qwerty style, the examiner would like to introduce Miramontes to explicitly teach the limitation (paragraph 15, last 7 lines).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Uchikura, Moon's and Iizuka's portable information device with Miramontes's teachings about a qwerty keyboard in order to obtain a standard computer/typewriter English language style keyboard.

Regarding claims 15, 28, 40 and 55, Uchikura, Moon and Iizuka teach all the limitations of claims 1, 16, 29 and 41, respectively. Miramontes teaches of a camera (paragraph 41, figure 1, item 45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Moon's and Miramontes's portable information device with Miramontes's further teachings about a camera in order to provide a video phone, as taught by Miramontes.

7. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uchikura in view of Moon and Iizuka and further in view of Wendorff et al. (Wendorff, US007120458B2).

Regarding claim 11, 24, 37 and 51, Uchikura, Moon and Iizuka teach all the limitations of claims 1, 16, 29 and 41, respectively.

Wendorff teaches where the number pad folds sideways to a left side with respect to the housing (figure 5, where the change of position is a designer's choice).

8. Claim 5-6, 18-19, 32 and 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchikura in view of Moon and Iizuka, and further in view of Chung et al. (Chung, US Patent No.: 6,825,832 B2).

Regarding claims 5, 18 and 45, Uchikura, Moon and Iizuka teach all the limitations of claims 1, 16 and 41, respectively.

Uchikura, Moon and Iizuka do not specifically teach where the keyboard is a game pad keyboard.

Chung teaches where the keyboard is a game pad keyboard (column 9, lines 12-26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Uchikura's, Moon's and Iizuka's portable information device with Chung's game pad keyboard in order to allow the device to operate in three different modes including, game mode, as taught by Chung.

Regarding claims 6, 19, 32 and 46, Uchikura, Moon, Iizuka and Chung teach all the limitations of claims 5, 18, 29 and 45, respectively.

Chung further teaches game pad keyboard comprises a directional pad (figure 8 and column 9, lines 7-9, e.g., "cursor control 52a").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Moon's, Miramontes' and Chung's portable information device with Chung's further teachings about a cursor control in order to provide directional pad control.

9. Claims 7-9, 20-22, 33-35 and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchikura in view of Moon, Iizuka and Chung, and further in view of Zatloukal.

Regarding claims 7, 20, 33 and 47, Uchikura, Moon, Iizuka and Chung teach all the limitations of claims 5, 18, 29 and 45, respectively.

Uchikura, Moon, Iizuka and Chung do not specifically teach where the game pad keyboard comprises at least one programmable action button.

Zatloukal teaches where the game pad keyboard comprises at least one programmable action button (claim 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Uchikura's, Moon's, Iizuka's and Chung's combined portable information device with Zatloukal's "programmable function key" in order to change the functions of the keys.

Regarding claims 8, 21, 34 and 48, Uchikura, Moon, Iizuka and Chung teach all the limitations of claim 5, 18, 29 and 45, respectively.

Uchikura, Moon, Iizuka and Chung do not specifically teach where the game pad keyboard comprises at least one trigger.

Zatloukal teaches where the game pad keyboard comprises at least one trigger (paragraph 28, where a joystick as any regular key can provide a trigger).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Uchikura's, Moon's, Iizuka's and Chung' combined portable information device with Zatloukal's trigger in order to provide the functions of a game.

Regarding claims 9, 22, 35 and 49, Uchikura, Moon, Iizuka and Chung teach all the limitations of claim 5, 18, 29 and 45, respectively.

Uchikura, Moon, Iizuka and Chung do not specifically teach where the game pad keyboard comprises a slider throttle control.

Zatloukal teaches where the game pad keyboard comprises a slider throttle control (paragraph 28, where the "joystick" provides "slider throttle control"). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Uchikura's, Moon's, Iizuka's and Chung' combined portable information device with Zatloukal's joystick in order to control the game, as taught by Zatloukal.

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1-53 and 55 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 571-272-7885. The examiner can normally be reached on 6:00 a.m. - 1:30 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571) 272-4177. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either the PAIR or Public PAIR. Status information for unpublished applications is available through the Private PAIR only. For more information about the pair system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

/P. M. A./

Examiner, Art Unit 2618

April 4, 2008

/Matthew D. Anderson/

Supervisory Patent Examiner, Art Unit 2618